

# THE MINERAL INDUSTRY OF ISRAEL

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Israel's indigenous mineral industry is based on the extraction of bromine, magnesium, and potassium bearing evaporites from the Dead Sea, phosphate rock mining, the manufacture of cement and fertilizers, and the production of minor quantities of crude oil and natural gas. Israel is the world's second largest producer of bromine and bromine compounds, the sixth largest producer of potash, and the seventh largest producer of phosphate rock. Mineral processing, based on imported raw materials, includes the cutting and polishing of gemstones, the refining of crude oil, and the production of crude steel. Domestic mineral fuel production represents less than 1% of the nation's energy requirements. (*See table 1.*) The source of imported crude oil is, for the most part, Mexico, while the bulk of coal imports are derived from South Africa. Imported crude oil and petroleum products accounted for nearly two-thirds of total energy requirements, while coal accounted for the remaining one-third. Virtually all electric power is coal-based and required the import of nearly 8 million metric tons (Mt) of coal in 1996. Imports are expected to climb to 11.5 Mt annually after the year 2000 when two new 560-megawatt plants come on-line in Ashkelon, according to Israel's National Coal Supply Corp.

The diamond cutting and polishing trade alone accounted for nearly one-fifth of the value of total imports and about one-fourth of the value of total exports. The United States is Israel's key trading partner. Exports to the United States included polished diamonds, other gemstones, and metals. Imports from the United States included transportation equipment, chemicals, jet fuel, rough diamonds, and precious stones.

The Government remained the principal owner of most of the country's mineral-related industries. The diamond cutting and polishing industry was privately owned as were the cement and potassium nitrate manufactures. The Government reduced its equity in Israel Chemical Ltd; the parent of Dead Sea Works, from 75% to 28% in 1995. In early 1996 an additional 24.9% was sold for \$230 million reducing Government holdings in the corporation to 3.1%. This discharged the corporation the laws pertaining to Government companies.

An Israel Chemicals Ltd. subsidiary, the Rotem-Amfert-Negev Group, doubled its fertilizer granulation capacity in 1996

to 900,000 metric tons per year (t/yr) at a cost of \$46 million.

The nation's sole cement producer, Neshor Israel Cement Enterprises, operated plants at Haifa, Tel Aviv, and near Jerusalem with a combined kiln capacity of more than 5 million metric tons per year. A new lime plant with the capacity of 90,000 t/yr of hydrated and specialty products came on-stream in 1996 at Mishor Rotem.

An Israeli-Egyptian consortium, the Middle East Oil Refinery, (MIDOR) was formed in mid-1996 for the construction and operation of a \$1.3 billion export refinery near Alexandria, Egypt, involving Universal Oil Products and Conoco-Bechtel of the United States.

Israel's infrastructure includes industrial harbors at Ashdod, Elat, and Haifa. A total of 708 kilometers (km) of pipelines transport crude oil from the Port of Elat, on the Gulf of Aqaba, to the Haifa and Ashdod oil refineries. There are 89 km of natural gas pipelines and 290 km of refined petroleum products pipelines. About 85% of the traffic on Israel's 594-km rail system was involved in the transport of potash and phosphate materials from the Dead Sea and the Negev Desert to the Ports of Ashdod and Haifa.

Israel's mineral industry is export-oriented and its fortunes tend fluctuate with world commodity prices. Trends to export higher-valued mineral products, such as custom fertilizers and high-grade chemicals are expected to continue.

## Major Source of Information

Ministry of Energy and Infrastructure  
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Jerusalem  
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## Major Publication

Central Bureau of Statistics  
Statistical Abstract of Israel 1995, No. 46  
Tel Aviv, Israel 1996

TABLE 1  
ISRAEL: PRODUCTION OF MINERAL COMMODITIES 1/

(Metric tons unless otherwise specified)

Commodity 2/	1992	1993	1994	1995	1996 e/
<b>METALS</b>					
Iron and steel, steel, crude	109,000	120,000	180,000	200,000 e/	200,000
<b>INDUSTRIAL MINERALS</b>					
Bromine:					
Elemental	135,000	130,000	130,000 e/	130,000 e/	160,000
Compounds	125,000	121,000	121,000 e/	121,000 e/	145,000
Cement, hydraulic	thousand tons	3,960 r/	4,536 r/	4,800 r/	5,000
Clays:					
Flint clays	30,000	40,000	40,000 e/	40,000 e/	40,000
Kaolin	53,000	40,000	40,000 e/	40,000 e/	40,000
Other	3,000	8,500	8,500 e/	8,500 e/	8,500
Fertilizer materials, manufactured:					
Nitrogenous, N content of ammonia and urea	33,800	38,743	38,000 e/	38,000 e/	38,000
Phosphatic, P content	23,400	30,363	30,300 e/	33,000 r/ e/	33,000
Potassic, K content	18,600	16,007	16,000 e/	17,000 r/ e/	17,000
Gypsum e/	47,663 3/	48,000	48,000	50,000 r/	50,000
Lime e/	208,000	210,000	210,000	210,000	275,000
Magnesia, Mg content	38,600	42,223	42,200 e/	42,200 e/	42,200
Phosphate rock:					
Beneficiated	thousand tons	3,595	3,680	3,961	4,063
P2O5 content	do.	1,125	1,148	1,232	1,264
Potash, K2O equivalent	do.	1,296	1,309	1,259	1,325 r/
Salt, marketed (mainly marine)	do.	1,102 3/	1,123	1,120 e/	900 e/
Sand:					
Glass sand	100,000	82,700	176,300 r/	175,000 r/ e/	175,000
Other e/	do.	7,012	7,063 3/	7,060	7,060
Sodium and potassium compounds, caustic soda	29,459 r/	29,851 r/	32,765 r/	32,800 r/ e/	32,800
Stone: e/					
Crushed	thousand tons	17,100	31,515	31,500	31,500
Dimension, marble	do.	12,000	12,000	12,000	12,000
Sulfur:					
Byproduct from petroleum e/	do.	60	60	60	60
Sulfuric acid e/	do.	130	130	130	130
<b>MINERAL FUELS AND RELATED MATERIALS</b>					
Gas, natural: e/					
Gross	do.	22,600	19,800	19,000	18,000
Dry	do.	22,600	19,800	19,000	18,000
Petroleum:					
Crude	thousand 42-gallon barrels	70	56	37	36
Refinery products:					
Gasoline	do.	15,300	18,500	19,800 r/	20,000 r/
Kerosene and jet fuel	do.	6,200	5,300	5,200	8,200 r/
Distillate fuel oil	do.	18,800	21,000	20,500	22,600 r/
Residual fuel oil	do.	24,350	28,500	28,000	23,000 r/
Other	do.	10,500	13,200	13,000	12,000 r/
Total	do.	75,150	86,500	86,500 r/	85,800 r/

e/ Estimated. r/ Revised.

1/ Table includes data available through May 15, 1997.

2/ In addition to the commodities listed, a variety of other crude construction materials are produced, but available information is inadequate to make reliable estimates of output levels.

3/ Reported figure.